ABSTRACT OF THE DISCLOSURE

A casing alignment tool detachably mounts on a wellhead flange for moving a section of a casing into a concentric alignment with the wellhead of a well bore. The tool has a base plate attachable to the flange and a perpendicularly extending back plate, which supports a hydraulic jack or a winch. In the embodiment having a hydraulic jack, the tool provides for a V-block assembly with spread arms for pushing against the casing when the hydraulic jack is operated. In the embodiment using a winch, one or more flexible, non-stretchable bands are provided for wrapping around the casing and pulling the casing into alignment, with the flange acting as a fulcrum.